

CHIKUN, M.S.

Treatment of trophic ulcers of the lower extremities with hemo-
novocain blocks combined with an adhesive plaster bandage. Zdrav.
Bel. 7 no.11:47-49 N '61. (MIRA 15:11)

1. Meditsinskaya sanitarnaya chast' Minskogo zavoda avtomaticheskikh
liniy (glavnyy vrach meditsinskoy sanitarnoy chasti M.A.Gorezko).
(EXTREMITIES, LOWER--ULCERS) (NOVOCAINE)
(BANDAGES AND BANDAGING) (BLOOD AS FOOD OR MEDICINE)

CHIKUN, M.S.

Metallotherapy of poisoning by viper venoms. Zdrav.Bel. 8 no.5:49-
51 My '62. (MIRA 15:10)

1. Meditsinskaya sanitarnaya chast' Minskogo zavoda avtomaticheskikh
liniy (glavnyy vrach M.A.Gorezko).
(VENOM--PHYSIOLOGICAL EFFECT) (POTASSIUM PERMANGANATE)

CHIKUN, M.S., vrach

Use of potassium permanganate in acute methyl alcohol poisoning. Zdrav.Bel. 9 no.2:37-42 F'63. (MIRA 16:7)

1. Kafedra farmakologii (zav. - prof. K.S.Shadurskiy) Minskogo gosudarstvennogo meditsinskogo instituta.

(POTASSIUM PERMANGANATE—THERAPEUTIC USE)

(METHANOL—TOXICOLOGY)

CHIKUN, M.S.

Effect of potassium permanganate on experimental hyperkinesia
caused by convulsant poisons. Zdrav. Bel. 9 no.6:52-53 Je '63.
(MIRA 17:5)

1. Iz kafedry farmakologii Minskogo meditsinskogo instituta
(zaveduyushchiy - prof. K.S. Shadurskiy) i mediko-sanitarnoy
chasti Minskogo zavoda avtomaticheskikh liniy (glavnyy vrach
M.A. Gorezko).

CHIKUNOV, A.

Device for hoisting front axles. Avt.transp. 38
no.8:53 Ag '60. (MIRA 13:8)
(Motorbuses--Maintenance and repair)

GITLEVICH, A.D.; ZHIVOTINSKIY, L.A.; ZHMAKIN, D.F.; FAL'KEVICH,
A.S., kand.tekhn. nauk, retsenzent; CHIKUNOV, A.I., inzh.,
retsenzent; TYURIN, V.F., inzh., red.; PETUKHOVA, G.N.,
red.izd-vz; MODEL', B.I., tekhn.red.

[Work standards based on technical data for welding engineer-
ing processes] Tekhnicheskoe normirovanie tekhnologicheskikh
protsessov v svarochnykh tsekhakh. [By] A.D.Gitlevich i dr.
Moskva, Mashgiz, 1962. 170 p. (MIRA 16:3)
(Welding—Production standards)

BREYTMAN, M.M.; SHEBEKO, L.P.; CHIKUNOV, A.I., inzh., retsenzent;
KUL'BERG, L.M., retsenzent; CHERNYAK, V.S., inzh., red.

[Economics, organization and planning of welding production]
Ekonomika, organizatsiia i planirovanie svarochnogo proiz-
vodstva. Moskva, Izd-vo "Mashinostroenie," 1964. 207 p.
(MIRA 17:8)

GONCHAROV, F.I.; DEMIN, P.Ye.; CHIKUNOV, F.M.

Changing the setting systems of pusher-control boards for
heating furnaces. Shor.rats.predl.vnedr.v proizvod. no.1:31 '61.
(MIRA 14:7)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Furnaces, Heating)

L 29594-66 EWT(1)

ACC NR: AR6012303

SOURCE CODE: UR/0274/65/000/010/A012/A012

AUTHOR: Chikunov, L. I.

TITLE: Calculating the transients in long lines with resistive-reactive load

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10A86

REF SOURCE: Tr. uchebn. in-tov svyazi. M -vo svyazi SSSR, vyp. 22, 1964, 200-211

TOPIC TAGS: transmission line, transient flow.

ABSTRACT: In the long-line transient-process problems, it is expedient in some cases first to find the map of the unknown function and then, instead of determining the original, set up an equation of the unknown function. This can be done by a convolution operation which brings about an intermediate integral equation which can be broken up into simpler equations much facilitating the determination of the original. The validity of the method is illustrated by an example of determining the transients in a homogeneous long line due to d-c voltage. It is assumed that the primary line parameters satisfy the Heavyside conditions. As a numerical example, a line is examined which is loaded by parallel-connected R and L. Two figures. Two tables. Bibliography of 3 titles. L. S. [Translation of abstract]

SUB CODE: 17, 09

Card 1/1

UDC: 621.372.061.018.782.3

L 8769-66

ACC NR: AR5018772

SOURCE CODE: UR/0274/65/000/007/A056/A056

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 7A369

AUTHOR: Chikunov, L. I.

TITLE: Transient process in a distortionless resistive-load line

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 21, 1964, 165-172

TOPIC TAGS: transmission line, transient phenomenon

TRANSLATION: The transient processes are examined in a distortionless line whose parameters satisfy the Heavyside's condition $L/R = C/G$. In this case, the output voltage differs in shape from the input voltage only when the load is not equal to the line characteristic impedance. The telegraphist's equations are solved by an operational method. Even in the simplest case (connecting a long line with zero initial conditions to a d-c voltage source), the output voltage cannot be expressed by an elementary function; it is expressed by series or integrals. The effect of a single-square pulse and a periodic sequence of square pulses on the line is also considered. Formulas are derived which permit exact calculation of the output voltage at any time moment, with any resistive load. A possibility is also provided for determining voltages and currents at any line point. Numerical examples and calculation curves are given. Bib 4, figs 2.

SUB CODE: 09, 37
Cord 1/1

UDC: 621.372.81

L 9137-66 EWT(1)/EWA(h)

ACC NR: AR6000136

SOURCE CODE: UR/0058/65/000/008/H046/H046

SOURCE: Ref. zh. Fizika, Abs. 8Zh313

AUTHOR: Chikunov, L. I. ⁵⁵

ORG: none

TITLE: Calculation of the transient process in long lines with active-reactive load

CITED SOURCE: T. uchebn. in-tov svyazi. M-vo svyazi SSSR, ⁵⁵vyp. 22, 1964, 200-211

TOPIC TAGS: transmission line, electric power transmission, mathematical transformation ^{25.55}

TRANSLATION: It is proposed to determine the inverse transform with the aid of an intermediate equation. The use of this method has made it possible to derive formulas for the calculation of the transient process in long lines without distortion and in lossless lines fed with dc voltage.

SUB CODE: 09

Card 1/1 *ids*

KARASEV, M.F., doktor tekhn.nauk, prof.; FALEYEV, V.A., kand.tekhn.nauk, dotsent;
TRUSHKOV, A.M., kand.tekhn.nauk, dotsent; KOZLOV, V.N., inzh.; MEDLIN,
R.Ya., inzh.; LEBEDEV, N.A., inzh.; CHIKUNOV, O.V., inzh.

Testing of the new electric brushes on d.c. locomotives. Trudy
OMIT 40:3-41 '63. (MIRA 18:8)

LIVSHITS, P.S., kand. tekhn. nauk; BORDACHENKOV, A.M., inzh.; CHIKUNOV, O.V.,
inzh.

Determination of the operating characteristics of traction motor brushes.
Elektrotehnika 36 no.7:34-36 J1 '65. (MIRA 18:7)

1. CHIKUNOV, V.
2. USSR (600)
4. Locomotives - Fuel Consumption
7. Ways of economizing fuel in railroad transportation. Za ekon. mat. no. 3, '52.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

CHIKUNOV, V.A.

Possibilities of using diesel fuel and lubricants with a high sulfur content for diesel locomotives. Zhel.dor.transp. 44
no.7:40-42 JI '62. (MIRA 15:8)

1. Nachal'nik Toplivno-teplotekhnicheskogo upravleniya Glavnogo upravleniya lokomotivnogo khozyaystva Ministerstva putey soobshcheniya.

(Diesel fuels)

CHIKUNOV, V.I., inzh.

Cartridge in a protective casing for use in the caving of roofs
in stopes of mines subject to gas and dust. Nauch. soob. VostNII
no.1:74-80 '61. (MIRA 18:5)

L 01806-67 EWT(m)/T DJ
 ACC NR: AP6030589 (AN) SOURCE CODE: UR/0413/66/000/016/0073/0073 44
 INVENTOR: Ismailov, R. G. A. O.; Mamedov, M. A. A. O.; Spektor, Sh. Sh.; Seidov, M. M. M. O.; Vartapetov, A. A.; Shchelkonogov, I. A.; Kyazimov, A. A. O.; Aliyev, A. A. G. O.; Tangiyeva, T. A.; Kesel'man, L. G.; Lobanov, V. V.; Chikunov, V. A.; Blidchenko, I. F.; Tarumov, G. A.; Bombandirov, P. P.; Merkur'yev, G. D.; Petrov, S. A.

ORG: none

TITLE: Lubricating oil for bushings. Class 23, No. 184997

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 16, 1966, 73

TOPIC TAGS: lubricant, bushing, petroleum

ABSTRACT: An Author Certificate has been issued describing a lubricant for bushings, with a solar fraction and mazut base. To expand the operating temperature range of the oil, a petroleum fraction with a boil-away of 4-5% at 240-320C is added to the lubricant. This fraction is obtained from the petroleum distillate at 300-310C. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 05Nov64/
 Card 1/1 UDC: 629.11.012.26

ACC NR: AP6035946 (A) SOURCE CODE: UR/0413/66/000/020/0215/0216

INVENTOR: Chikunov, V. I.

ORG: None

TITLE: A safety shell for industrial explosive blasting cartridges. Class 78, No. 187581

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 215-216

TOPIC TAGS: nonmilitary safety equipment, shell design, explosive

ABSTRACT: This Author's Certificate introduces a safety shell for tapered or cylindrical industrial explosive blasting cartridges. The shell is designed for improved safety properties and also for creating favorable conditions for complete detonation of the cartridges. The material for the shell contains the following percent composition: solid resol phenol-cresol-anilinoformaldehyde resin--32±1; potassium chloride--35±1; kaolin--27±1; stearin--3±0.3; polishing lime--3±0.3.

SUB CODE: 19/ SUBM DATE: 25Nov64

Card 1/1

UDC: 662.235

CHIKUNOV, V.I., inzh.

Small roof-caving cartridges designed by the East Mining Research Institut.
Bezop.truda v prom. 6 no.11:21 N '62. (MIRA 16:2)
(Blasting—Equipment and supplies)

KRUTELEV, A.T.; CHIKUNOVA, A.A.

Use of KV rings on P-114-Sh continuous spinning machines.

Tekst.prom. 21 no.2:72 Ja '61.

(MIRA 14:3)

1. Ispolnyayushchiy obyazannosti glavnogo inzh. Morshanskoy sukonnoy fabriki (for Krutelev).
 2. Nachal'nik pryadil'noy gruppy nauchno-issledov.laboratorii Morshanskoy sukonnoy fabriki (for Chikunova).
- (Spinning machinery)

CHIKUNOVA, V.S.

Regeneration of striated muscles. Dokl.AN SSSR 93 no.3:563-566 N '53.
(MLRA 6:11)

1. Stalinabadskiy gosudarstvennyy meditsinskiy institut im. Avitsenny.
Predstavleno akademikom A.I.Abrikozovym.
(Muscle) (Regeneration (Biology))

CHIKUNOVA, V.S.

Comparative investigation of the motor innervation of skeletal muscles by the application of various functional loads. Dokl. AN SSSR 94 no.2:353-356 Ja '54. (MLRA 7:1)

1. Leningradskiy veterinarnyy institut Ministerstva sel'skogo khozyaystva i zagotovok SSSR. (Muscle) (Nerves)

MOSTOVAYA, Ye.F.; CHIKUNOVA, Z.A.

Reiter's syndrome in a 13-year-old boy. Vest. dermat. i ven.
39 no.4:82 Ap '65. (MIRA 19:2)

1. Detskaya respublikanskaya bol'nitsa (glavnyy vrach S.I.
Dudenkova), Saransk. Submitted Feb. 12, 1964.

CHIKUROV, G.S.

Stirring device. Suggested by G.S.Chikurov. Rats.1 isobr.predl.v
stroil. no.8:114-115 '58. (MIRA 13:3)

1. Po materialam Ministerstva transportnogo stroitel'stva.
(Kilns--Equipment and supplies)

Service of periodic kilns with suspended arches and heat insulation. I. F. CHUKUROV, *Ognesopory*, 11 (11-12) 13-16 (1946).—Details are given of the service of periodic kilns with suspended arches at the Laitonezh grove works. Suggestions for the construction of new kilns are as follows: (1) use of mechanical stokers where it is impossible to use gas heating; (2) improved recirculation of gases in the kiln; (3) use of brick with a volume weight of less than 1 for the roofs and walls, slag wool for insulating the roof, and protective coatings to prevent premature destruction; and (4) the construction of sliding bottoms. The use of suspended arches should not be limited to periodic kilns only; their use in continuous kilns should be favored. B. Z. K.

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1297. INTERMITTENT KILNS WITH INSULATED SUSPENDED ROOF. Chikurov, I. P. (Ogneupory, 1946, 11, Nos. 11-12, 13). The operation of rectangular intermittent kilns with suspended roofs is briefly described. The roofs are constructed of lightweight bricks with a layer of granulated firebrick. Reductions of 17% in fuel consumption and of 38% in firing time (Maximum temperature 1, 350°C.) as compared with the normal arch-type kilns are recorded. B.R.R.A.																																																																																																			
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CHIKUROV, I. F.

PA 40/49T42

USSR/Engineering
Furnaces
Refractories

Apr 49

"Improved Construction of Shaft Furnaces,"
I. F. Chikurov, Engr, A. A. Shumilin, Cand
Tech Sci, 6 $\frac{1}{2}$ pp

"Ogneupory" No 4

Describes subject drier with sketch. Explains
how process can be improved by fitting a
device which divides the tunnel into two
separate aerodynamic zones.

40/49T42

CHIKURCV, I.F.

30346

Pryess - val'try dlya formovki brikyeta. Ognyepory, 1949, No 10, w. 427-31

SO: LETOPIS' No. 34

CHIKUROV, I. K.

Improving the construction of shaft kilns / I. K. Chikurov and A. A. Shumilin. *Opneupory*, 14 (4) 186-88 (1949).--The chief defect of gas fired shaft kilns used for firing grog is the uneven distribution of the generator gas and combustion products within the space of the kiln. The construction of kilns with narrower shafts and the use of higher gas pressure did not result in more even distribution of the gas. In changing two shaft kilns to use gas fuel, the burners were constructed in the form of slits 1400 x 80 mm. and 1.8 m. (width of kiln) apart. The burners (slits) were in two rows, six in the upper and eight in the lower row. Gas was not delivered to the upper burners because combustion there was found to be largely incomplete. The slit burners produced satisfactory distribution of gas in the firing zone. Gas analysis at different points in the cross section of the kiln showed that the central part of the kiln was supplied with sufficient gas and that the excess of air along the periphery was somewhat greater than in the center. In two other kilns, all the 14 burners (slits) were in one row and 800 mm. above those in the first-mentioned kilns; the burners were 1400 x 25 mm. The outputs of both pairs of kilns were practically the same.
B.Z.K.

ASH: 3.2 METALLURGICAL LITERATURE CLASSIFICATION

83081 871011101

83081 8011111

137 AND 138 SERIES		POSITIONS AND PROPERTIES INDEX		139 AND 138 SERIES	
CA 19 Briquets for grog firing in shaft kilns. I. P. Chikunov and V. M. Mal'gina. <i>Ognesorye</i> 14, No. 6, 340-3 (1949). The formation of large ambs. of fines in firing briquets to grog in shaft kilns is due to the low quality of the briquets as well as to the defects inherent in the kilns. The briquets are in the form of blocks. Their strength is 8 kg./sq. cm. and moisture content 18-20%. Tests with briquets made by the plastic method from 60% Chasov Yar clay and 40% Vladimirovka kaolin indicate that max. strength of 18 kg./sq. cm. occurs at a moisture content of 8-9%. The optimum wt. of briquets should be 1.5-2 kg. A mix was heated with steam to 200-300° and the briquets were subjected to an air stream of 6-8 m./sec.; after 2 hrs. the moisture content was reduced from 19% to 14-15%. B. Z. Kamich					
ABB. 13.4 METALLURGICAL LITERATURE CLASSIFICATION ENTRÉE EN LIBR.					
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CHIKUROV, I. F.

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BRIQUETTES FOR GROG FIRING IN SHAFT KILNS. I. F. Chikurov and V. M. Mul'gina. Ogneupory, 14 [6] 246-49 (1949). -- The formation of large amounts of fines in firing briquettes to grog in shaft kilns is due to the low quality of the briquettes as well as to the defects inherent in these kilns. The briquettes are in the form of blocks having a strength of 8 kg./cm.² and a moisture content of 18 to 20%. Tests with briquettes made by the plastic method from 60% Ghasov Yar clay and 40% Vladimirovka Kaolin indicate that a maximum strength of 18 kg./cm.² occurs for a moisture content of 8 to 9%. From the standpoints of (1) intensity of moisture loss, (2) resistance of briquette layer to the movement of gases in the kiln, and (3) temperature gradient in the briquette during firing, the optimum weight of briquettes should be 1.5 to 2 kg. To assure constant density of packing and to avoid destruction of briquettes, they should be of spherical or similar form. The use of steam to heat the mix decreases the drying pe-

Selection of grain size of mixes for high-grog shapes. I. F. CHIKUNOV AND V. M. MUKHOMOVA. *Ognesopkoye*, 15 [5] 204-207 (1950).—In semidry pressing of brick at the Orzhonikidze Refractory Works, the grain size of the mix was as follows: (a) 70% passed 85 to 90% through a 0.54-mm. sieve; and (b) 24% grog fraction passed up to 18% through a 0.54-mm. sieve with up to 15% residue on a 2-mm. sieve and 0% residue on a 3-mm. sieve. The resulting product had a compressive strength of over 350 kg./cm.² and a porosity not over 10%; these values were improved (720 kg./cm.² and 17.1%) by changing the grain size of the grog fraction so that up to 9% passed through the 0.54-mm. sieve, with 25 to 35% residue on the 2-mm. sieve and 0% residue on the 3-mm. sieve. Further experiments led to the following conclusions: (1) For greatest density, the grog fraction should not be less than 40%, nor over 50% and its grain size should not be below 2 mm. or, if appearance of the brick is important, not below 3 mm. (2) For low porosity (12%), a mixture of clay and grog (50% of mix) should pass a 0.1-mm. sieve, with a residue close to 0%.

B. Z. K.

B C S

Fulle, K. L. N. S. T. S. S.

1280. Experiences with re-constructed shaft kilns.—I. F. Chuklov (Ogneupor, 16, 411, 1951). The author argues that it is wrong to regard the shaft kiln as unsuitable for firing grog and describes a series of minor improvements, both in the methods of grog production and in the construction of the shaft kiln, carried out in a Russian plant. The output was almost doubled when the briquettes, to ensure a low moisture content and uniform size, were made spherical by means of press-rollers. (1 fig., 2 tables.)

15(6)

AUTHORS: Tomash, K. K., Chikurov, I. F.

000001-0-11-000

TITLE: Pan-Chinese Conference of Experts on Refractory Materials
(Vsekitayskoye soveshchaniye ogneporshchikov)

PERIODICAL: Ogneupory, 1958, Nr 11, pp 526-527 (USSR)

ABSTRACT: The conference was held in **Ch'ung-ching** in July 1958. Under discussion were the possibilities of development of the industry of refractory products. The demand for refractory products in 1959 is expected to be three- to four times that of 1958. The creative energy and the enthusiasm of the workers is regarded as a decisive factor in the rapid increase of the production of refractory products. Studies are carried on in the laboratories of scientific research institutes and plants on the performance of refractory products in open-hearth, blast and other industrial furnaces; raw materials and technological processes of the production of high density and great stability refractory products are examined. Reports were given by the **Pekinskiy** institut chernoy metallurgii (**Peking** Institute of Metallurgy) on the production of high density and great resistance magnesite; by the Shin'yanskiy institut metallov AN KNR (**Shen-yang** Insti-

Card 1/2

Pan-Chinese Conference of Experts on Refractory materials

SOV/131-78-11-8/9

tute of Metals of the AS CPR) on the performance of magnesite bricks on a spinel bond in vaults of open-hearth furnaces; by the tsentral'naya laboratoriya odnogo iz metallurgicheskikh Kombinatov (Central Laboratory of one of the metallurgic kombinats) on the technology and performance of magnesite bricks on a spinel bond. These vault bricks and bonds are used in open-hearth furnaces to an ever increasing extent and their stability lasts for up to 500 heats. The participants in the conference expressed their conviction that the problems of the industry of refractory products are being successfully solved.

Card 2/2

BRON, V.A.; SIMONOV, K.V.; CHIKUROV, I.F.; UZBERG, A.I.

Magnesite brick with a spinel bond for the walls of high capacity electric arc furnaces. Ogneupory 27 no.8:345-350 '62. (MIRA 15:9)

1. Vostochnyy institut ogneuporov (for Bron, Simonov). 2. Zavod "Magnezit" (for Chikurov, Uzberg). (Firebrick)

CHLAUROV, I.F.

Results of operating and prospects for expanding the "Magnezit" plant.
Ogneupory 29 no.6:241-243 '64.
(MIRA 18:1)

1. Zavod "Magnezit".

ACCESSION NR: AT4007056

S/2598/63/000/010/0322/0331

AUTHOR: Belan, N. I.; Borisova, M. S.; Idel'chik, B. M.; Chikurova, A. A.

TITLE: Titanium alloys AT-3, AT-4, AT-6 and VT-3-1 as materials for compressor discs operating in various aggressive media

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy*, no. 10, 1963. Issledovaniya titanovy*kh splavov, 322-331

TOPIC TAGS: titanium alloy, titanium alloy property, elevated temperature property, subzero-temperature property, AT-3 titanium alloy, AT-4 titanium alloy, AT-6 titanium alloy, VT-3-1 titanium alloy, titanium alloy corrosion, titanium alloy stress corrosion, titanium aluminum chromium alloy, silicon containing alloy, iron containing alloy, boron containing alloy, titanium alloy corrosion resistance

ABSTRACT: The possibility of using titanium-base alloys for compressor runner discs operating in air and aggressive media has been investigated. As shown in Table 1 of the Enclosure test specimens of alloys AT-3, AT-4, AT-6, and VT-3-1 have been used, and their mechanical properties, thermal stability, compatibility with aggressive

Card 1/4

ACCESSION NR: AT4007056

media, and galvanic action with steels have been investigated under various conditions. It has been found that: (1) Optimum annealing has practically no influence on the original mechanical properties of alloys AT-3, AT-4, and AT-6. (2) Short-time tensile strength of alloys AT-3, AT-4, AT-6, and BT-3-1 decreases with the increase of temperature up to 400 C and ductility increases. (3) Impact resistance decreases considerably at low temperatures, particularly at -80 C for AT-4, at -40 C for AT-6, and below -80 C for BT-3-1; however, even at the lowest test temperature of -180 C, the lowest impact resistance is $2-3 \frac{\text{kg m}}{\text{cm}^2}$. (4) Heating of alloys AT-3, AT-4, AT-6, and BT-3-1 for 3700 hours at 200 C has no influence on mechanical properties. Heating of alloys AT-4, AT-6, and BT-3-1 for 9500 hours at 400 C considerably reduces plasticity and impact strength, but increases hardness and tensile strength. (5) At room temperature alloys AT-3, AT-4, and BT-3-1 have high corrosion resistance to a saturated aqueous solution of hydrogen sulfide, to 5% hydrochloric acid solution, and to an 'industrial' atmosphere containing 0.1% SO₂ and 0.5% CO₂ at 100% relative humidity. Coupling of the alloys with steels of the type 1X 18H9T and X 17H2 in saturated aqueous solution of hydrogen sulfide and with steels 40X and 1X 18H9T in an 'industrial' atmosphere barely reduces the corrosion resistance of the steels. (6) At room temperature the corrosion resistance of alloys AT-3,

Card 2/4

ACCESSION NR: AT4007056

AT-4, and BT-3-1 to 10% hydrochloric acid solution is satisfactory. (7) At room temperature alloys AT-3, AT-4, and BT-3-1 have not shown a tendency to corrosion cracking under simultaneous action of tensile stress (80% of yield) and an aggressive medium: (a) during 500 hours in saturated aqueous solution of hydrogen sulfide; (b) during 1200 hours in 5% hydrochloric acid solution. (8) At room temperature alloys AT-4 and BT-3-1 have not shown a tendency to corrosion cracking during 1200 hours in 30% nitric acid solution under simultaneous action of tensile stress (60% of yield). (9) At room temperature alloys AT-3, AT-4, and BT-3-1 have indicated a tendency to corrosion cracking in 10% hydrochloric acid solution under simultaneous action of tensile stress (80% of yield). (10) Alloys AT-3, AT-4, and BT-3-1 have shown a tendency to absorb atomic hydrogen at conditions of electrolysis at 45C; simultaneous action of tensile stress (60% of yield) during the process of hydrogen absorption leads to the brittle fracture of specimens after a relatively short time (20-50 hours). Orig art. has: 10 tables.

ASSOCIATION: Institut Metallurgii AN SSSR (Metallurgical Institute AN SSSR)

SUBMITTED: 00

DATE ACQ: 27Dec63

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER 000

Card 3/4

ACCESSION NR: AT4007056

ENCLOSURE: 01

Table 1 — Chemical composition, dimensions and number of tested forging billets of titanium alloys AT-3, AT-4, AT-6, and BT-3-1.

Alloy	Composition, % (*)							Dimensions, mm		Number of tested billets
	Al	Cr	Mo	Si	Fe	B	Σ Cr, S, Fe	dia.	height	
AT-3	2.8	0.30	-	0.23	0.51	0.01	1.0	430	110	1
AT-4	4.69	0.80	-	0.34	0.26	0.01	1.4	430	95	2
AT-6	5.52	0.71	-	0.64	0.29	0.01	1.6	430	95	1
BT-3-1	5.41	1.9	2.34	0.06	0.16	-	-	480	120	2

* Note: The rest is titanium

Card 4/4

ИДЕЛ'ЧИК, Б.М., инж.; ЧИКУРОВА, А.А., инж.

Preservation measures and protective and decorative coatings for parts and assemblies of turbines and compressors going to tropical countries. Energomashinostroenie 4 no. 6:45 Je '58.

(MIRA 11:8)

(Protective coatings)
(Machinery--Painting)

38707

S/598/62/000/007/039/040
D217/D307

18.1285
AUTHORS:

Belan, N. I., Idel'chik, B. M., Borisova, M. S. and
Chikurova, A. A.

TITLE:

Investigating titanium alloy AT₆ (AT6) for its suitability as material for working wheels of supercharges operating in aggressive media

SOURCE:

Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy. no. 7, Moscow, 1962. Metallokhimiya i novyye splavy, 288-293

TEXT: Forgings of the alloy AT₆, containing 5.8 wt-% Al and 1.1% Cr + Fe + Si + B, were studied. The mechanical properties of the as-received material were tested on probes from the surface and from the central portion of the forging. In order to choose the optimum heat treatment of manufactured components and to elucidate the influence of annealing on the change in mechanical properties of the alloy, two heat treatment procedures were tried out. One of them, recommended by the Institute of Metallurgy AS USSR, con-

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D217/D307

Investigating titanium alloy ...

sists in heating to 850°C, soaking at that temperature for 1 hour and cooling in air. The other consisted in heating to 840°C, soaking at that temperature for 1 hour and furnace-cooling to 600°C, followed by cooling in air. The alloy was also tested for its corrosion resistance. It was found that the alloy in the forged condition possesses a high proof stress, both at the surface and in the center of the forgings, high toughness and a satisfactory plasticity. Heat treatment of the alloy at 840°C with subsequent air cooling increases the impact resistance somewhat, without affecting the original strength and plasticity. Furnace-cooling from 840°C to 600°C leads to a slight reduction in percentage elongation. The alloy did not exhibit any tendency to stress corrosion cracking during testing with application of a tensile stress of 70 kg/mm² for 750 hours at room temperature in water saturated with H₂S. Also, the general corrosion resistance of the alloy in water saturated with H₂S was found to be high. On bringing the alloy in contact with the steel 1X18H9T (1Kh18N9T) with an area ratio of 1:1, the corrosion resistance of the steel in H₂S-saturated water de-

Investigating titanium alloy ...

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creased somewhat, but still remained at a high level. Under conditions of short-term testing (700 hours) in hydrogen at 100°C and a pressure of 60 atm, no tendency to hydrogen embrittlement was observed. There are 4 figures and 3 tables.

X

Card 3/3

CHIKVAIDZE, B.G.

Automatic electron polarograph. Scot. AN Gruz. SSR 33 no.1:
117-122 Ja '64. (MIRA 17:7)

CHIKVAIDZE, G.D.

Conditions of moisture provision for farm crops in Shiraki and Samgori. Trudy TbilNIGMI no.12:108-115 '63.

Determination of average monthly discharges and evaluation of the irrigation capacity of unstudied rivers of the upper reaches of the Kuban. Ibid.:116-123 (MIRA 18:5)

CHIKVAIDZE, G.D.

Water temperature of the rivers of the Kuban headwaters for the
vegetation period. Trudy Tbilniskiy no.15:156-160 '64.

(MIRA 18:10)

CHIKVAIDZE, G.D.

Mean flow of the suspended load of the rivers of the upper reaches of the Kuban for the vegetative period and its determination. Trudy TbilNIGMI no.17:91-98 '65.

(MIRA 18:11)

Chikvaide, G.I.

GURGENIDZE, V.M., prof. (Tbilisi); BOYAKHCHEV, L.R., inzhener (Tbilisi);

CHIKVAIDZE, G.I., inzhener (Tbilisi); BOLOTHYY, V.Ya., inzhener
(Dnepropetrovsk).

More on lengthening station tracks. Zhel.dor.transp. 39 no.9:56-58
S '57. (MIRA 10:10)

(Railroads--Stations)

CHIKVAIDZE, G.I., Cand Tech Sci -- (diss) "On ^{the} the problem of ~~con-~~
~~designing~~ ^{neckes} ~~at~~ ^{classification stations} ~~construction of manholes of sorting~~ railroad ~~junctions~~." Tbilisi, 1959.
23 pp with ^{diagrams} ~~schemes~~ (MPS Min of Railways, Tbilisi; Inst of Engi-
neers of Railroad Transport im V.I. Lenin). 150 copies
(KL 49-50, 104)

41

CHIKVAIDZE, N.M.

Antitoxic and proteinogenic functions of the liver in renal lithiasis. Soob.AN Grus.SSR 23 no.5:541-546 N '59. (MIRA 13:6)

1. Respublikanskaya tsentral'naya klinicheskaya bol'nitsa Minzdrava GruzSSR, Tbilisi. Predstavleno akademikom K.D.Eristavi.
(LIVER) (CALCULI, URINARY)

CHIKVAIDZE, N. M.

Cand Med Sci - (diss) "Clinical value of the study of the anti-toxic and proteinogenic function of the liver in operative treatment of nephrolithiasis and in hypertrophy of the prostate gland." Tbilisi, 1961. 27 pp; (Tbilisi State Medical Inst); 160 copies; free; (KL, 5-61 sup, 207)

CHIKVALDZE, V. N. -- "The Dynamics of Renin and Renol in the Kidneys in Experimental Reflexogenic Hypertension and the Effect on Them of Narcotic Substances." Published by the Acad Sci Georgian SSR. Acad Sci Georgian SSR. Tbilisi State Medical Inst. Tbilisi, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).
So.: Knizhnaya Letopis', No. 6, 1956.

USSR/Human and Animal Physiology. Circulation

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65266

T-5

Author : Stepun O.A., Lomouri A.I., Akhmeteli G.S., ~~Chikvaia V.N.~~
Inst : The Institute of Cardiology of the Academy of Sciences of
the Georgian SSR, in Collaboration with the Institute of
Title : Physiology of the Academy of Sciences of the Ukrainian SSR
: The Nature of the Pressor Substance of the Ischemic Kidney,
"Renol". and its Nonidentity with Renin.

Orig Pub : V sb.: Stenogr. otchet nauchn. sessii In-ta kardiol. AN
Grux SSR s uchastiyem In-ta fiziol. AN USSR. Tbilisi, AN
GurxSSR, 1956, 64-71

Abstract : The accumulation of renol in the kidneys of a rabbit with renal,
neurogenic and castration hypertension begins several hours
after the corresponding operation and ceases after 3-4
months, in spite of the fact that the hypertension remains.
Prior autolysis of the kidneys considerably increased the
activity of the extract made from them, and a pressor ef-
fect was exerted even by extract prepared from the kidneys

Card

: 1/2

USSR/Human and Animal Physiology. Circulation

Abs Jour ; Ref Zhur - Biol., No 14, 1958, No 65266

T-5

of healthy animals. The author suggests that renol is loosely bound to a protein molecule. The acid pH which arises in ischemia as well as during autolysis of renal tissue favors the splitting of this bond and the release of pressor substance. Five hours of autolysis is enough for the complete release of renol.--A.A. Titayev

Card : 2/2

42

CHIKVAIDZE, V.N.

USSR / Pharmacology, Toxicology. Narcotics and Hypnotics

U-2

Abs Jour : Ref. Zh.-Biol., No 2, 1968, No 7936

Author : Chikvaizde

Inst :

Title : The Effect of Barbamyl and Chloral Hydrate on the Dynamics of the Kidneys' Renin and Renol in Experimental Reflexogenic Hypertension.

Orig Pub : Tr. In-t Klinich. i experim. Kardiol. ANGruzSSR, 1956(1957), 4, 261-268

Abstract : Administration for 5 days of chloral hydrate and barbamyl to rabbits with a reflexogenic hypertension, resulted in lowering the blood pressure to normal and a decrease in the renin and renol content of the kidneys. The author concludes that the renal pressor mechanism plays a secondary role in

Card : 1/2

USSR / Pharmacology, Toxicology. Narcotics and Hypnotics

U-2

Ab's Jour : Ref. Zh.-Biol., No 2, 1958, No 7936

Abstract : the pathogenesis of experimental reflexogenic hypertension, being influenced by the CNS.

Card : 2/2

STEPUN, G.A., [deceased], LOMAURO, A.I., AKHMETELI, G.S., CHIKVAIDZE, V.N.,
(Tbilisi)

Further data on biochemical properties of renin in the normal kidney
and of renol, the pressor substance of rabbits kidney ischemized in vivo
and of Kidney autolyzed in vitro. Arkh.pat. 18 no.2:52-57 (MIRA 11:10)

1. Iz otdela patokhimii (zav. - prof. O.A. Stepun) Instituta klinicheskoy
i eksperimental'noy kardiologii A.N. GruzSSR (dir. - deystvitel'nyy
chlen AN GruzSSR, prof. M.D. TSinamzvarishvili).

(PROTEASES,

renin, differentiation from renol, pressor substance from
kidney ischemia in vivo & kidney after autolysis in vitro
(Rus))

(KIDNEYS,

isolation of pressor substance renol in ischemia in vivo
& after autolysis in vitro (Rus))

(BLOOD PRESSURE, effect of drugs on,

pressor substance renol isolated from kidneys in ischemia
in vivo & after autolysis in vitro (Rus))

CHIKVAIDZE, V.N.

Quantity of glutamine and glutamic acid in the myocardium
in chronic irritation of the gallbladder. Trudy Inst. klin.
i eksper. kard. AN Gruz. SSR 7 no.2:47-51 '61.
(MIRA 17:1)

GAMBASHIDZE, N.B., KIKODZE, N.L.; CHIKVAIDZE, V.N.

Effect of an extract of the medullar portion of the kidneys on
some functions of the cardiovascular system. Soob. AN Gruz.
SSR 30 no.1:85-90 Ja '63. (MIRA 17:1)

1. Institut klinicheskoy i eksperimental'noy kardiologii imeni
M.D. TSinamdzhvarishvili AN Gruzinskoy SSR, Tbilisi. Predstavleno
akademikom K.D. Eristavi.



CHIKVAIDZE, V.N.

Effect of γ -aminobutyric acid on the rate of the restoration
of phosphorus compounds in brain preparations. Scob. AN Gruz.
SSR 32 no.3:567-574 D '63.

(MIRA 17:11)

KOMETIANI, P.A.; Prinimali uchastiye: KLEYN, Ye.E.; CHIKVAIDZE, V.N.; GVALIYA, N.V.; IORDANISHVILI, G.S.

Relation between amino acid transformations and ammonia metabolism in the brain. Ukr.biokhim,zhur. 37 no.5:721-733 '65.

1. Institut fiziologii AN GruzSSR, Tbilisi.

(MIRA 18:10)

CHIKVADZE, V.S., inzh. (Dnepropetrovsk)

Efficient distribution of loaded freight cars. Zhel. dor. transp.
40 no.8:67-69 Ag '58. (MIRA 11:9)
(Railroads--Freight cars)

POPSUYEV, A.V., kand. tekhn. nauk (Dnepropetrovsk); CHIKVAIDZE, V.S. (Dnepropetrovsk)

Concentration of freight operations in base-load stations. Zhel.
(MIRA 17:11)
d.r. transp. 46 no.10:62-64 0 '64.

1. Glavnyy inzh. gruzovoy sluzhby Pridneprovskoy dorogi (for Chikvaidze).

CHIKVANAYA, YE. YE.

Chikvanaya, Ye. Ye.: "Development of the root system and tree tops of the tangerine on slopes in relation to the plantation layout", Byulleten' Vsesoyuz. nauch.-issled. in-ta chaya i subtrop. kul'tur, 1948, No. 4, p. 12-33, - Bibliog: 28 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

COUNTRY USSR
 CATEGORY : Cultivated Plants. Medicinal Essential Oil
 Bearing. Toxins.
 AFS. JOUR. : Ref Zhur-Biologiya, No.1, 1959, No. 1886
 AUTHOR : Chikvanava, Ye.Ye.
 INST. : Sukhumsk Zonal Exper. Station for Essential
 TITLE : The Effect of Uplifted Ridges on Soil Water
 Conditions and on the Essential Oil Crop at
 Kolkhidskaya Depression.
 ORIG. PUB. : Tr. Sukhumsk. zonal'n. opyt. st. efirovashch
 kul'tur, 1957. vyp. 2. 131-144
 ABSTRACT : At Kolkhidskaya Depression where periodic
 excessive precipitation and nearly flat relief
 on the terrain produce stagnant water, it is
 essential to set up uplifted ridges (downhill
 drains) between drying areas to promote the
 more rapid flow of surface water from the
 territory. In 1954 to 1956 at the Auxiliary
 Point at Kolkhidskaya Essential Oil Sovkhoz
 a study was organized of the effectiveness of
 the above-mentioned agricultural improvement

* Oil Bearing Crops

CARD:

1/3

COUNTRY :
CATEGORY :

ABG. JOUR. : Raf Zhur-Biclogiya, No.1, 1962, No.1886

ADTEGR :
INSTR :
TITLE :

ORIG. IUB. :

ABSTRACT

method under essential oil crops (East Indian basil (*Ocimum grassimum*), patchouli and pink geranium), as a consequence of which it has been established that the optimum breadth of the ridge in relation to the relief of the terrain and soil conditions is 3 and 8 m. wide. The essential oil crop yield on the downhill drains is 30-35% higher than on smoothly flattened patches. Taking into consideration the yearly construction of the uphill ridges cause

CARD:

2/3

COUNTRY :
CATEGORY :

REF. JOUR. : Ref Zhur-Biologiya, No.1, 1959, No 1886

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : difficulties, the author recommends constant
elevated ridges being set up for the essen-
tial oil bearing crops. --A.G. Vyatkina

CARD: 3/3

USSR/Cultivated Plants - Medicinal, Essential Oil Bearing.
Poisonous.

11-10

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39556

Author : Chikvanaya, Ye.Ye.

Inst : All-Union Scientific Research Institute of Natural and
Synthetic Aromatic Substances.

Title : Utilization of Tropical and Subtropical Essential Oil
Plants.

Orig Pub : Maslob.-zir. prom-st', 1957, No 4, 16-20.

Abstract : It is possible to obtain up to 46/ha of aromatic geranium
in Georgia, by using proper agricultural engineering. In
Armenia, up to 30 can be obtained from one hectare of green
mass. Geranium varieties No 24 and 15 were produced at
experimental stations of the All-Union Scientific Research

Card 1/3

- 174 -

USSR/Cultivated Plants - Medicinal, Essential Oil Bearing.
poisonous.

11-10

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39556

Institute of Natural and Synthetic Aromatic Substances.
Their yield of essential oil exceeded the yield of local
varieties by $1\frac{1}{2}$ - 2 times. The citronellol content in
their oil is 67.2% (50% more than in local varieties).
It is noted that many high oil yielding varieties of rose-
sage, lavender, geranium, sage and other crops were deve-
loped by selection stations several years ago. However,
they are not yet sowed under industrial conditions. New
varieties of essential oil bearers and their origin, re-
gionalization, agricultural engineering and technology of
obtaining essential oil are described. The work of the
Kokshidskiy branch of VNIH on tea and subtropical crops
is noted. Experiments relative to the installation of
raised-convex beds for essential oil bearers, and to the
protection of plants from insects and pests by applica-
tion

Card 2/3

USSR/Cultivated Plants - Medicinal, Essential Oil Bearing.
Poisonous.

14-10

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39556

of organic phosphorus preparations (octamethyl, thiophos
and chlortene) are also noted. A method of using thiophos
to control sucking pests is given for production purposes.
-- R.I. Serebryanny

Card 3/3

- 175 -

CHIKVANAYA, Ye. Ye., kand.sel'skokhoz.nauk

Increasing yield and quality of essential oils. Masl.-zhir.
prom, 27 no.6:28-31 Je '61. (MIRA 14:6)

1. Sukhumsкая опытная станция эфиромасличных культур.
(Essences and essential oils)

MIKULINSKIY, Yevgeniy Aleksandrovich, kapitan dal'nego plavaniya;
CHIKVANDZE, V.M., redaktor; IGOSHIN, M.G., redaktor izdatel'stva;
KARYAKINA, M.S., tekhnicheskiy redaktor

[Preventing collisions of ships at sea] Preduprezhdenie stolknovenii sudov v more; pravila, illiustratsii i poiasneniia. Moskva, Izd-vo DOSAAF, 1955.111 p. (MLRA 9:10)
(Collisions at sea--Prevention)

CHIKVASHVILI, A.M.

Clinical diagnosis of acute adrenal insufficiency. Probl. endok. 1
gorm. 6 no. 4:107-111 JI-Ag '60. (MIRA 14:1)
(ADRENAL CORTEX--DISEASES)

CHIKVASHVILI, B.M., Cand Tech Sci — (diss) "Hydraulics of water-
draining ⁴⁴⁸ galleries of high ^{dams} ~~diss.~~" Len, 1959. 19 pp (Min of
Construction of Electric Stations ^{power} ~~USSR~~ USSR. All-Union Scientific
Research Inst of Hydr ^{eng} Engineering in B. Ye. Vedenev), 200 co-
pies (IL, 30-59, 121)

- 38 -

CHIKVASHVILI, B.M., kand.tekhn.nauk

Shaft spillway as an energy dissipator. Gidr. i mel. 14 no.2:
28-31 F '62. (MIRA 15:1)

1. Gruzgiprovodkhoz.

(Spillways)

KUTATELADZE, N.G.; CHIKVASHVILI, B.M.

Determining the value of the coefficient of the resistance at
the entering area of a rectangular pressure pipe. Trudy GPI
[Gruz.] no.1:127-134 '63. (MIRA 18:2)

GENES, V.S.; CHIKVASHVILI, Sh.M.

Function of the thyroid gland in compensatory hypertrophy of the
kidneys and ovaries. Biul. eksp. biol. i med. 53 no. 6:19-23 Je '62.
(MIRA 15:10)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo instituta
meditsinskoy radiologii i Ukrainского instituta usovershenstvovaniya
vrachey. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.
(THYROID GLAND) (OVARIES) (KIDNEYS)

S/058/62/000/009/035/069
A006/A101

24, 2700

AUTHOR: Chikvashvili, Ya.

TITLE: Interaction of spin waves with phonons in antiferromagnetics

PERIODICAL: Referativnyy zhurnal, Fizika, no. 9, 1962, 70, abstract 9E498
("Tbilissk. un-ta", 1960, v. 86, 427 - 432)

TEXT: A theoretical analysis is made of the interaction of spin waves with phonons in antiferromagnetics. Under the assumption that the deviation from equilibrium distribution is small, an expression is obtained for the average relaxation time τ_1 . ✓ E

[Abstracter's note: Complete translation]

Card 1/1

CHIKVASHVILI, Ya. M.

Changes in the resistance of bismuth in a strong magnetic field.
Fiz. met. metalloved. 11 no.6:817-819 Je '61. (MIRA 14:6)

1. Tbilisskiy gosudarstvennyy universitet imeni I. V. Stalina.
(Bismuth—Magnetic properties)
(Magnetic fields)

hh52h

S/181/63/005/001/062/064
B104/B186

DE COPY (also 4205)

AUTHOR: Chikvashvili, Ya. M.

TITLE: Theory of sound absorption in semiconductors

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 363-364.

TEXT: The possibility of determining the effective electron mass and the nature of electron-phonon interaction from the ultrasonic absorption coefficient is examined on the assumption that the ultrasonic absorption coefficient in semiconductors is directly related to the electron-phonon interaction more than is the infrared absorption coefficient. The Hamiltonian of electron-phonon interaction reads:

$$\mathcal{H}_{e-p} = \pm i \left(\frac{\alpha}{V} \right)^{1/2} \frac{2}{3} \left(\frac{\hbar}{2M\omega_q} \right)^{1/2} C_q \left\{ \begin{array}{l} n_q^{1/2} f_k^{1/2} (1 - f_{k+q})^{1/2}, \\ (n_q + 1)^{1/2} f_{k+q}^{1/2} (1 - f_k)^{1/2} \end{array} \right. \quad (1).$$

The change in number of phonons per unit time is found to be

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B104/B186

Theory of sound absorption in...

$$\dot{n}_q = \frac{4\pi}{9} \frac{\Omega}{V} \frac{C^2 q^2}{M \omega_q} \sum_k [(n_q + 1) f_{k+q} (1 - f_k) - n_q f_k (1 - f_{k+q})] \times \delta(E_{k+q} - E_k - \hbar \omega_q). \quad (2)$$

With the aid of the formula $\delta = -\frac{1}{2} \left(\frac{\dot{n}_q}{n_q} \right)_q$,

$$\delta = -\frac{2\pi}{9} \frac{\Omega}{V} \frac{C^2 q^2}{M \omega_q} \sum_k (f_{k+q} - f_k) \times \delta(E_{k+q} - E_k - \hbar \omega_q). \quad (3)$$

is obtained for the sound absorption coefficient by taking into account that $n_q \gg 1$ holds in a sound field. Since electrons in a semiconductor are assumed to have Maxwellian distribution,

$$\delta = \frac{2}{9 (2\pi)^{1/2}} \frac{N_{sa}}{N_{sq}} \frac{m^*}{M} \frac{C^2}{\hbar (m^* s^2)^{1/2} (kT)^{1/2}} \left(1 - \exp \left[-\frac{\hbar \omega}{kT} \right] \right) \times \exp \left[-\frac{m^* s^2}{2kT} \left(\frac{\hbar \omega}{2m^* s^2} - 1 \right)^2 \right]. \quad (4)$$

Theory of sound absorption in...

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B104/B186

is obtained from (3) by integration. Formulas adapted to the experimental conditions are obtained from (4): e.g.

$$\delta = \frac{2}{9(2\pi)^{1/2}} \frac{N_{\text{ex}}}{N_{\text{av}}} \frac{m^*}{M} \frac{C^2 \omega}{(m^* s^2)^{1/2} (kT)^{1/2}} \quad (5)$$

for $m^* s^2 \ll kT$, $\hbar \omega \ll \sqrt{m^* s^2 kT}$. If $N_{\text{ex}}/V \approx 10^{16} \text{ cm}^{-3}$, $T \approx 100^\circ \text{K}$, $\omega \approx 10^9 \text{ cps}$, $C \approx 10 \text{ ev}$, then $\delta/s \approx 10 \text{ cm}^{-1}$ is obtained. s/δ determines the distance after which a sound amplitude decreases to the $\frac{1}{e}$ th part. Ω is the volume of the unit cell, V is the total volume, M is the mass of the semiconductor atom, $\vec{q}$ is the sound wave vector, $\omega_{\vec{q}}$ is the sound frequency, C is the coupling constant of electron-phonon interaction, $n_{\vec{q}}$ is the number of phonons, $f_{\vec{k}}$ is the electron distribution function, N_{ex} is the number of conduction electrons, N_{uc} is the number of unit cells, s is the sound velocity, and

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Theory of sound absorption in...

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B104/B186

m^* is the effective electron mass.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Gruz. SSR, Sukhumi (Physico-
technical Institute AS GSSR, Sukhumi)

SUBMITTED: September 29, 1962

Card 4/4

CHIKVASHVILI, Ya. M.

On the theory of sound absorption in semiconductors. Fiz. tver.
tela 5 no.1:363-364 Ja '63. (MIRA 16:1)

1. Fiziko-tekhnicheskii institut AN GruzSSR, Sukhumi.

(Semiconductors—Electric properties)
(Absorption of sound)

CHIKVILADZE, I. D.

"Results of a Study of the Chief Species of Borers Damaging Grape Vines in Kakheti, and Development of Measures to Control Them." Cand Agr Sci, Inst of Viticulture and Wine Making, Acad Sci Georgia SSR, Tbilisi, 1953. (RZhBiol, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)

SO: Sum. No. 598, 29 Jul 55

CHIKVILADZE, Irina Dmitriyevna

[Noctuid moth pests of the grape and their control] Vrednye
dlia vinogradnoi losy sovki i bor'ba s nimi. Tbilisi, Akad.
nauk Gruzinskoi SSR. 1956. 18 p. (MIRA 13:10)
(Grapes--Diseases and pests) (Cutworms)

RYABCHENKO, Averin, agronom-entomolog; BOGOVIK, I.V., kand.biol.nauk;
ROGACHEV, V.L., starshiy nauchnyy sotrudnik; MARAKULIN, A.I.,
mladshiy nauchnyy sotrudnik; YATSENKO, G.K.; RUPAYS, A.A., agronom-
entomolog; CHIKVILADZE, I.D., kand.sel'skokhozyaystvennykh nauk;
SEMENOV, A.Ye., kand.sel'skokhozyaystvennykh nauk; MAMUKYAN, V.V.

Brief reports. Zashch.rast.ot vred.i bol. 4 no.3:54-56 My-Je
(MIRA 13:4)

59.

1. Nachal'nik Pavlodarskogo otryada po bor'be s vreditelyami
(for Ryabchenko). 2. Zaporozhskaya opytная stantsiya (for
Rogachev). 3. Bostandykskoye opytnoye pole Uzbekakogo instituta
sadovodstva i vinogradarstva (for Marakulin). 4. Starshiy agronom
Khabarovskoy karantinnoy inspeksii (for Yatsenko). 5. Zaveduyu-
shchiy sektorom sluzhby ucheta i prognozov Ministerstva sel'-
skogo khozyaystva ArmSSR (for Mamkyan).
(Plant diseases) . (Agricultural pests)

CHIKVILADZE, I.D., mladshiy nauchnyy sotrudnik

Instead of Bordeaux mixture. Zashch.rast.ot vred.i bol. 7 no.6:37
Je '62. (MIRA 15:12)

1. Opytnaya stantsiya Instituta sadovodstva, vinogradarstva i
vinodeliya, Gruzinskoy SSR, g. Telavi.
(Grapes—Diseases and pests) (Fungicides)

CHIKVILADZE, P.A.; NODIYA, M.Yu., prof., red.; TSITLANADZE, G.V.,
prof., red.; KANDELAKI, D.P., red. izd-va; KHUNDADZE, Z.G.,
tekh. red.

[Health resorts of local significance in the Georgian S.S.R.]
Kurorty mestnogo znachenia Gruzinskoi SSR. Tbilisi, Sabchota
Sakartvelo, 1961. 268 p. (MIRA 15:7)
(GEORGIA--HEALTH RESORTS, WATERING PLACES, ETC.)

CHILACHAVA, D.I., inzh.

Foundation of large reinforced concrete blocks under roller conveyors.
Prom. stroi. 41 no.8:32-33 Ag '64. (MIRA 17:11)

1. Magnitogorskiy metallurgicheskiy kombinat.

AFRIKYAN, E.K.; TUMANYAN, V.G.; ~~CHIL-AKOPYAN, L.A.~~; BOBIKYAN, R.A.;
SARUKHANYAN, L.B.; AVAKYAN, Z.G.

Effectiveness of antibiotics in bacterial diseases of the silkworm
and in increasing productiveness. Dokl. AN Arm. SSR 32 no. 3: 155-158
'61. (MIRA 14:5)

1. Sektor mikrobiologii Akademii nauk Armyanskoy SSR. Predstavleno
akademikom AN Armyanskoy SSR V.O. Gulkanyanov.
(Silkworms--Diseases and pests) (Antibiotics)

27.12.20
AUTHORS:

44578
S/739/60/001/000/015/015
E020/E185
Vlasenko, S.P., Candidate of Medical Sciences;
Kheifets, Yu.B., Junior Scientist; and
Chil-Akopyan, L.A.

TITLE:

The effect of ionizing radiation upon oxygen
consumption and certain aspects of carbohydrate
metabolism

SOURCE:

Akademiya nauk Armyanskoy SSR. Sektor radiobiologii.
Voprosy radiobiologii. v.1, 1960, 191-196

TEXT:

An investigation was made of the effects of insulin and
X-irradiation given singly or in combination, upon the oxygen
consumption, blood-sugar level and glycogen content of the
leucocytes in rats. Exposure to 600 r was followed by a fall in
all these quantities, which attained minimum values after 1.5-3 h.
A return to normal levels occurred after 24 hours. In animals
given a single dose of insulin without irradiation the blood sugar
and oxygen consumption fell similarly, but a rise in glycogen
content of the leucocytes occurred after 1.5-3 hours and persisted
24 hours. The combined action of insulin and irradiation did

The effect of ionizing radiation ... S/739/60/001/000/015/015
not lead to any notable changes in these findings. E020/E185
There are 3 figures.

ard 2/2

VLASENKO, S.P., kand.med.nauk; KHEYFETS, Yu.B., mladshiy nauchnyy
sotrudnik; CHIL-AKOPYAN, L.A.

Effect of ionizing radiation on the consumption of oxygen and
some aspects of carbohydrate metabolism. Vop. radiobiol.
[AN Arm. SSR] 1:191-197 '60. (MIRA 15:3)

(RADIATION—PHYSIOLOGICAL EFFECT)

(CARBOHYDRATE METABOLISM)

(OXYGEN IN THE BODY)

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B-8
Thermochemistry. Equilibria. Phase
Transitions. Physico-Chemical Analysis.

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22450.

Author : I. Standart, George., Cihla, Zdenek. II. Chila,
Zdenek. III. Standart, George., Chila, Zdenek.
IV. Standart, George.

Inst : Columbia University, New York.

Title : Phenomena of Interphase Transfer. I. Schrage's
Theory. II. General Discrete Model of Pure Gas.
III. Continuous Model of Mixture of Ideal Gases.
IV. Application of Thermodynamics of Irreversible
Processes.

Orig Pub: Chem. Listy, 1958, 52, No 5, 787-796, 797-805,
806-814, 815-829.

Abstract: I. The transfer phenomena on the interphase boun-

Card 1/5

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B-8
Thermochemistry. Equilibria. Phase
Transitions. Physico-Chemical Analysis.

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22450.

Abstract: dary in a heterogeneous system consisting of a gaseous and a condensed (liquid or solid) phase are discussed; the phases may be either unicomponent, or multicomponent. The initial assumptions are as follows: 1) the boundary separating the phases is flat and stationary; 2) the gaseous phase is an ideal gas or a mixture of ideal gases; 3) the system is one-dimensional, i.e. all the physical magnitudes have a constant value on planes parallel to the boundary; 4) the course of physical magnitudes may be discontinuous on the boundary; 5) adsorption on the phase boundary may be neglected. The theory, developed earlier for interphase phenomena of transfer in a unicomponent

Card 2/5

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B-8
Thermochemistry. Equilibria. Phase
Transitions. Physico-Chemical Analysis.

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22450.

Abstract: heterogeneous system, is critically analyzed.
(Schrage R. W. A Theoretical Study of Interphase
Mass Transfer. New York, Columbia Univ. Press,
1958.

II. The model of the state of gas near the inter-
phase boundary in a unicomponent system gas - liq-
uid or gas - solid substance is described. The
author departs from the kinetic theory of ideal
gases with the function of distribution of gas
taken into consideration with the accuracy up to
the disturbance of the first order. The results
of Schrage's theory follow from the general theory
as a special case.

Card 3/5

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B-8
Thermochemistry. Equilibria. Phase
Transitions. Physico-Chemical Analysis.

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 22450.

Abstract: III. A particular case of the model described under II. The model is applied to a multicomponent heterogeneous system. Expression for the transfer of masses, momenta and energy across the phase boundaries are derived; these expressions are discussed in application to a binary system. Schrage's theory is criticized.

IV. The theories described in the preceding three reports are based on the kinetic theory of gases and make it possible to calculate the transfer depending on the gradients of properties in each phase; the gradients, extrapolated to the interphase boundary. In the report IV, the interphase

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